

WHAT IS CLAIMED IS

1. Thermally modified carbon blacks comprising a particle size of  
5 between 7nm to 500nm and an oil adsorption number between 30 to 300  
ml/100g, for use in curing bladders in tire manufacture, which, in  
compounds, exhibit improved thermal conductivity and increased  
fatigue life when compared to conventional bladder compounds.
- 10 2. The thermally modified carbon blacks in claim 1, wherein the  
carbon black is produced by a continuous electrothermal furnace  
treatment process.
- 15 3. The thermally modified carbon blacks in claim 1, wherein the  
thermally modified carbon blacks are used in combination with furnace  
blacks.
- 20 4. The thermally modified carbon blacks in claim 1, wherein when  
used in curing bladders, replace acetylene blacks and conventional  
carbon blacks.
- 25 5. An improved curing bladder compound, comprising thermally  
modified carbon blacks having a particle size of between 7nm to 500nm  
and an oil adsorption number between 30 to 300 ml/100g, which, when  
combined with furnace blacks, exhibit improved thermal conductivity  
and increased fatigue life when compared to conventional bladder  
compounds.
- 30 6. The improved curing bladder compound in claim 5, wherein the  
bladder compound provide curing bladders with increased service life.
- 35 7. A thermally modified carbon black, produced by a continuous  
electrothermal furnace treatment process, for use in curing bladders  
in tire manufacture, which exhibit improved thermal conductivity and  
increased fatigue life when compared to conventional bladder  
compounds.
- 40 8. The thermally modified carbon black in claim 7, comprising a  
particle size of between 7nm to 500nm and an oil adsorption number  
between 30 to 300 ml/100g.
9. Thermally modified carbon blacks, produced by a continuous

electrothermal furnace treatment process, the blacks having a particle size of between 7nm to 500nm and an oil adsorption number between 30 to 300 ml/100g, for use in curing bladders in tire manufacture, which exhibit improved thermal conductivity when compared to conventional bladder compounds.

10. The thermally modified carbon blacks in claim 9, wherein the conventional bladder compounds include acetylene black.

10 11. The thermally modified carbon blacks in claim 9, wherein the blacks also improve the fatigue life of the compound.